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Conference Paper

The New Curriculum: A Tale from Indonesian Vocational Higher Education

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Abstract

Vocational education faces global challenges so that the vocational education and vocational training curriculum demanded must always be able to adapt to the conditions and changes that occur. The Ministry of Research, Technology and Higher Education has issued regulations on National Standards of Higher Education, one of which stipulates that 1 credits consists of 170 minutes of learning process. Vocational Education Program UI has been implementing the rule since 2016. The purpose of this research is to know how the UI vocational students respond to the application of the curriculum 2016. The research used the online survey method of the students of Vocational Education UI class of 2016. The results showed student response to the implementation of the new curriculum. In terms of socialization, detailed theoretical courses and practices are well informed. Hours of heavy study should be followed by the evaluation and maturation of learning modules.

Keywords: vocational education, vocational curriculum, curriculum 2016

1. Introduction

1.1. Background

The dynamic development of the world has an impact on employment needs. Patterns of relationship between countries are also increasingly competitive with the opening of the labor market in each country. Therefore, countries that can adapt to the changes that occur will benefit greatly from the opening of these jobs.

Vocational education is widely perceived as a stepping stone toward an employment field. But it turns out the increased opportunity to learn to make graduates of vocational many who want to go to further education. As an example in the Netherlands

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and South Korea, many vocational program students want advanced study. With that reality, it is necessary to design not only preparing students for the job market but also for further study. That is, there is also attention to academic skills as well as on technical skills. For the context of Indonesia, According to Law no. 12 of 2012 on Higher Education Article 16 paragraph 1 mentioned that vocational education is a higher education diploma program that prepares students for jobs with particular applied skills to applied undergraduate programs. With such practice skill, it is expected that vocational education graduates will be ready to enter the work world. The Organization for Economic Cooperation and Development (OECD) entitled Learning for Jobs (2010) states that in the 21st century when entering the job market is not just a job skill that must be possessed, but also a number of cognitive skills that can cope with changing jobs and careers, Maintain the ability to learn.

Sudira (2011) mentions that the global transformation of knowledge-based economy, creative industry, strong demands for the development of community quality, international and regional competition has led to changes in the pattern of vocational education in various parts of the world. So that the vocational education and training curriculum demanded must always adapt to the conditions, changes, and needs of the world of work. In principle, the curriculum should accommodate the needs of both the physical needs of learners, non-physic, and morals and their future to be safe, comfortable, happy, and prosperous.

Maclean and Wilson (2009) for example illustrate how South Korea has succeeded in developing vocational education as a pillar of economic growth. In the early 80s, to put pressure on export-based manufacturing, construction, and service-based sectors, the country needed skilled workers. At the same time, graduates of higher education are considered too educated and unable to fill the needs of skilled workers. At that time also the South Korean government is also reducing pressure on students who want to go to college. Currently, 40% of senior secondary students in South Korea choose vocational education. From the curriculum side, schools provide 75% of the general curriculum, the rest are vocational. The biggest challenge is how to stay adaptable to technological change. Currently, South Korea is testing the German dual system, which combines two years of study in class of and one year of internship.

That is, the curriculum as the backbone of teaching in educational institutions should always be adaptive to the changes that occur in society. For vocational programs, not only community changes, but also changes in the business world that are the main target of graduates of the program. With graduates who have better skills then the needs of the world of work can also be met well.



1.2. Problem statement

Referring to the application of college curriculum in Indonesia, the Ministry of Research, Technology and Higher Education has issued Ministerial Regulation No. 44 of 2015 on National Standards of Higher Education. In article 17, the calculation of 1 Credit Units (Semester Credit Units) consists of 170 minutes with the learning process in the form of: (1) lectures, responses, or tutorial consists of: a. Face-to-face activities 50 (fifty) minutes per week per semester; B. Structural assignment activities 60 (sixty) minutes per week per semester; And c. Independent activities 60 (sixty) minutes per week per semester. (2) seminars or other similar forms, consisting of: a. Face-to-face activities 100 (one hundred) minutes per week. Per semester; And b. Independent activities 70 (seventy) minutes per week per semester (3) the learning load in a block system, module, or other form is defined in accordance with the need to meet the learning outcomes. (4) practicum, studio practice, workshop practice, field practice, research, community service, and/or other similar learning process, 170 (one hundred and seventy) minutes per week per semester. Implementation of SKS 170 minute rule is also done by Vocational Education Program University of Indonesia since 2016 ago. Problem formulation in this research:

- 1. How do students of Vocational UI education programs respond to curriculum changes? What do they feel?
- 2. What are the benefits of Vocational U of Vocational Education Program students with a new curriculum that focuses on practicum?
- 3. What are the student feedbacks about the 2016 curriculum in Vocational Education Program UI so that later can be considered in the development of the next curriculum?

1.3. Research purposes

The practical purpose of this research is to know how UI vocational student's response to the application of curriculum 2016. While the theoretical goal is to provide insight into the research on the curriculum field as the backbone of the implementation of education and teaching in Vocational Education Program UI.



1.4. Limitations of research

This research only take the selected respondents from the students of Vocational Education Program UI class of 2016 so that its application is limited to the application of the 2016 curriculum in Vocational Education Program UI only.

2. Theoritical Frameworks

Okwuanaso (1985) argues that there are three main things that must be considered for vocational education in a country can run effectively namely: (1) Design the relevant curriculum. The relevant curriculum design for vocational education especially in developing countries has an impact on programs that will link to the needs of the work class of in the country. (2) The broader spectrum of the vocational curriculum. Vocational education in developing countries should prepare students with extensive initial skills and relate to the work they will face in order to be easily absorbed by employment (3) The opportunity to gain work experience. When graduates of successful vocational programs in the world of work, they can invite the same graduates of vocational education because the substance of science and practicum it belongs to.

In the contemporary framework of vocational education, according to Rojewski (2009) there are five main categories to consider: curricula, instructional options and program delivery, program evaluation, student assessment, and users (the world of work). Philosophy, whether implicit or explicit provides motivation and impetus for all practices throughout the area. External and internal influences such as the global economy and community expectations also need to be considered (see figure)

Especially for the curriculum, is to reflect the circumstances in the field, what is considered important and is happening. According to Rojewski, the discussion surrounding the required curriculum has changed the debate from a narrowly defined academic set toward broader academic or general competence, technical and job-specific skills, interpersonal skills and behavioral traits. Some of the core curricula that represent the world of vocations are (a) academic and career integration in the world of work (b) the relationship between school and job world. At least there are four thoughts of the curriculum goals are:

 The curriculum emphasizes on education through occupations where the vocational curriculum is presented in instructional form with traditional academic content





Figure 1: The contemporary framework of vocational education.

- 2. Focus on providing instruction through a broader career cluster with special skills for at least one third of graduates later
- 3. Provide about 8–12% for disadvantaged students to gain additional job training after high school graduation
- 4. Organizing education programs in vocations to be concurrent with models that have been successful first.

The application of the 170 minute SKS rule is also done by the Vocational Education Program of University of Indonesia since the academic year 2016/2017. The purpose of enactment of this rule in addition to comply with the applicable rules is also based on the reference vocational education programs generally applicable, that is, graduates who are ready to compete in the world of work. Of course, it is interesting to examine how students respond to the application of the new curriculum. How they adapt to these changes and what the direct and indirect impacts that students can feel.

Response in the view of psychology according to Sarlito (1995) is any behavior that is essentially a response or response (response) to stimulus or stimulus Response is a reaction or an answer that depends on the stimulus or the result of the stimulus. The human individual acts as the controller between the stimulus and the response so that which determines the form of individual response to the stimulus is the individual's own stimuli and factors. The interaction between several factors from the outside is the object, the people and in the form of attitude, death and emotion of past influence and



partly ultimately determines the form of behavior that is displayed by a person. This response can be either good or bad, positive or negative. When a positive response is concerned the person tends to like or approach the object, whereas the negative response tends to move away from the object.



3. Methodology

3.1. Research design

The research method used in this research is to use quantitative method which aims to know the picture of student response to the application of curriculum 2016. Quantitative research methods can be interpreted as research methods based on positivism philosophy, used to examine the population or a particular sample. Sampling technique is generally done randomly, collecting data using research instruments, data analysis is quantitative/statistical with the aim to test the hypothesis that has been established ([8]: 7).

Quantitative methods are often also called traditional, positivistic, scientific/ scientific methods and discovery methods. Quantitative method is called the traditional method, because this method has been used for a long time so it has traditionally as a method for research. This method is called a positivistic method because it is based on the philosophy of positivism. This method is called scientific method because this method has fulfilled the scientific norms that is concrete, empirical, objective, measurable, rational and systematic. This method is also called discovery method because with this method can be found and developed various new science and technology. This method is called the quantitative method because the research data in the form of numbers and analysis using statistics. This research data obtained through online survey (online). Survey method is a method that takes a sample from a population using questionnaires as a basic data gathering tool [1].

3.2. Object and location research

The research was conducted with the object of the students of Vocational Program of Universitas Indonesia in 2016. This object was chosen because the class of is directly using the 2016 curriculum as a new curriculum in Vocational Education Program UI.

3.3. Population and sample research

Population in this research is student of Vocational Education Program University of Indonesia class of 2016 which amounted to 885 people. The sample size will be determined by the Taro Yamane formula.



The Taro-Yamane formula is as follows [2]:

$$n = \frac{N}{N \cdot d^2 + 1}$$

Dimana: n = total sample

N = total population

d² = Error limit set 10%

So the number of samples in this study is:

$$n = \frac{885}{885 \times 0.01 + 1} = 91 people$$

The number of samples will be divided according to the number of study programs proportionately. The details are as follows:

NO.	STUDY PROGRAM	2016
1	Komunikasi	161
2	Pariwisata	81
3	Fisioterapi	42
4	Okupasi Terapi	26
5	Perumahsakitan	88
6	Adm. Asuransi dan Aktuaria	59
7	Adm. Keuangan dan Perbankan	79
8	Adm. Perkantoran dan Sekretari	67
9	Manajemen Informasi dan Dokumen	45
10	Administrasi Perpajakan	90
11	Akuntansi	147
	Total	885

TABLE 1: Cluster population.

Source: data processed by the researcher

3.4. Types and data sources

The data used are primary data. Primary data is sourced from questionnaire about student response of Vocational Education Program of UI to application of curriculum 2016.



NO.	STUDY PROGRAM	2016	Sampling size (decimal)	
1	Komunikasi	161	18	
2	Pariwisata	81	9	
3	Fisioterapi	42	5	
4	Okupasi Terapi	26	3	
5	Perumahsakitan	88	9	
6	Adm. Asuransi dan Aktuaria	59	6	
7	Adm. Keuangan dan Perbankan	79	8	
8	Adm. Perkantoran dan Sekretari	67	7	
9	Manajemen Informasi dan Dokumen	45	5	
10	Administrasi Perpajakan	90	9	
11	Akuntansi	147	15	
	Total	885	94	
Source: data processed by the researcher				

TABLE 2: Cluster sampling.

3.5. Data collection technique

The data collection methods used in this study were conducted with an online survey of Google docs. Survey method is a research method that takes samples from a population and uses questionnaires as a basic data collection tool. This survey will be conducted by distributing questionnaires online to respondents

4. Findings & Analysis

4.1. Respondents' overview

Respondents in this study were women (74.5% and 25.5% male). These respondents come from 11 courses in the Vocational Education Program UI with weight according to the number of students in each study program.

Respondents are the class of 2016 that directly use the curriculum 2016. Respondents of this study came from 11 courses with the following weighting on each study program







Figure 3: Student's of 11 study programs.

Students of class of 2016 Vocational Education Program UI majority coming from force of 2016 that is 93.7%. While the rest is coming from high school graduates in 2013-2015 amounted to 6.3%.

Student of Vocational Education Program UI which become the respondent of this research accepted to University of Indonesia mostly come from invitation path that is 55.3%. While the rest is received through the Private Selection UI (Simak UI).



Tahun kelulusan SMA

94 responses



Figure 4: Year of high school graduation.

Penerimaan dengan

94 responses



Figure 5: Vocational education program entrance gate.

4.2. Response to the curriculum 2016

Almost all students of Vocational Program UI who became respondents in this research argued that they already know that their curriculum is the curriculum 2016 (98.9%). While those who do not know just one person with a percentage of 1.1%

When faced with the question they are getting information about the 2016 curriculum, respondents' answers vary. Some think they get information from lecturers (84%), siblings (24.5%), to student groups (19.1%)

Students who become respondents of this research majority feel that the socialization of the curriculum 2016 when starting the lecture. At the time of orientation before





Apakah Anda mengetahui kurikulum yang anda jalani selama 2 semester ini adalah Kurikulum 2016?

Figure 6: The knowledge of respondents of having new curriculum.

Informasi mengenai Kurikulum 2016 Anda dapatkan dari mana? (pilihan boleh lebih dari satu)

94 responses

94 responses





entering college or before the lecture, curriculum 2016 also been understood by new students.

When starting the lecture, the new majority students already know that one course will consist of theory and practicum. Approximately 92.6% of students already know that one course that they will follow will consist of theory and practicum.

The lecture time for 1 credits theory is relatively well known to the respondent. There are 60.6% of students who know that 1 credits theory consists of 50 minutes meeting.

Number of respondents who know that 1 SKS of practicum is 170 minutes relatively more than do not know (51.1%). The rest they do not know how many 1 credits of practic.





Kapan Anda memperoleh sosialisasi Kurikulum 2016?

Figure 8: Curriculum 2016 socialization.

Apakah Anda mengetahui bahwa dalam Kurikulum 2016, 1 mata kuliah terdiri dari matakuliah teori dan matakuliah praktik?

94 responses

94 responses



Figure 9: Percentage of practicum and theory.

The findings are also quite interesting to explore is how the respondent response on the number of hours of study that combines theory with practice. The majority of respondents (90.4%) mentioned that the number of hours studied in the 2016 curriculum incriminated them. While 9.6% of students call learning hours are not burdensome for them.

Respondents of this study also mentioned that internships (internship) also need to be added to six months (one semester). Many respondents agreed with an additional apprenticeship of 54.3%. The rest disagreed with the growing number of internships





Apakah Anda mengetahui berapa menit lamanya 1 SKS Teori?

Figure 10: Percentage of theory.



55 responses

94 responses





4.3. Response to lectures with curriculum 2016

Respondents of this research mention agree (39.4%) that lecture by lecturer going well. The rest are quite agreeable (34%), and strongly agree (16%), disagree (8.5%) and strongly disagree (2.1%)

Respondents gave the opinion that the theoretical material can be well understood, that is, agree (38.3%), quite agree (35.1%) and strongly agree (12.8%). As for those who disagree (12.8%) and strongly disagree (1.1%)

When asked about the suitability between theory and practicum, the majority of respondents agreed (46.8%), agreed (26.6%), and strongly agreed (17%). The states disagree are (7.4%) and strongly disagree (1.1%)





Apakah Anda mengetahui berapa menit lamanya 1 SKS Praktek? 94 responses

Figure 12: Percentage of practicum.

Jika "Ya", berapa menit?





Practical lectures involve assistants who assist lecturers in conducting labs. In the respondents' view of this study, they quite agree (31.9%), agree (31.9%) and strongly agree (17%) that the practice lecture with the assistant goes well. On the other hand, there are 6.4% who strongly disagree and 12.8% disagree that the practice lecture with the assistant is going well.

Courses practicum considered respondents in accordance with the needs of the course. They agreed (39.4%), quite agree (30.9%), and strongly agreed (18.1%). On the contrary, respondents viewed the lab does not meet the needs of the course by stating strongly disagree (5.3%) and disagree (6.4%).





Apakah menurut Anda dengan jumlah jam belajar saat ini Kurikulum 2016 berat dijalani?

Figure 14: The respondents' response on the number of hours of study that combines theory with practice.

Apakah perlu tambahan jadwal kelas praktik misalnya magang (internship) di institusi perusahaan selama satu semester?

94 responses

94 responses



Figure 15: The respondents' response on internship and apprenticeship.

Apakah perkuliahan teori dengan dosen pengampu berjalan dengan baik?



Figure 16: The lecture situation.





Apakah materi teori dapat dipahami dengan baik?

Figure 17: Understanding the theory.

Apakah materi teori yang diberikan sesuai dan sejalan dengan praktiknya?



Figure 18: The suitability between theory and practicum.

Apakah perkuliahan praktik dengan asisten berjalan dengan baik?



94 responses

94 responses







Apakah praktik yang diberikan sesuai dengan kebutuhan mata kuliah? 94 responses

Figure 20: Courses practicum considered respondents in accordance with the needs of the course.

4.4. Conclusion

All respondents answered the questionnaire given. In the respondent's answer is they already know about the curriculum of 2016 which combines theory and practicum including with time lecture. Respondents also showed that the lab has been adapted to the needs of a course. Including the role of assistant in practicum is considered to assist lecturers in explaining the course.

In terms of socialization, respondents are relatively familiar with the details of theoretical courses and practices that are applied to the curriculum of 2016. The problem of time weight is the problem because they are relatively little know about 1 credits of practicum is 170 minutes. Also interesting is the respondents agree an internship program in one semester. As for the time lecture and lab work, the respondents viewed it as heavy or over 90%.

4.5. Suggestions

The calculation of 1 SKS consists of 170 minutes with the learning process that can be selected indeed lead to consequences such as increasingly long hours of study and assessed incriminating by the majority of respondents. There needs to be improvement on the implementation of curriculum 1 SKS 170 minutes with various steps as mentioned in Article 17 of Ministerial Regulation no.44 of 2015. Efforts that need to be done is to evaluate, make the book of learning design and the maturation of the learning module so that it does not just meet 170 minutes 1 Credits, but more than that prepare students to achieve learning objectives.



To overcome the physical and mental fatigue experienced by students in running the new curriculum 2016, we propose a model of thematic lectures and integrated between courses. For example, in the second semester of Communication Studies Program in Public Relations, students will get the following courses:

- 1. Intercultural Communication (KAB)
- 2. Human Relations
- 3. Integrated Marketing Communications (Komsardu)
- 4. PR Marketing
- 5. Research Methods of Public Relations
- 6. Public Speaking
- 7. Protocol

From these 7 subjects, 3 thematic clusters can be created, among others:

- 1. Cluster Komsardu In this cluster, there is a big project together that the material will be supported by 3 courses at once, namely: Integrated Marketing Communications, Public Relations Marketing, Research Methods Public Relations. Market research will be supported by data generated from the course of Research Method. Making a marketing program for public relations will be generated from the course Public Relations Marketing. The main project of the Integrated Marketing Communications course is a marketing event and proposal Integrated Marketing Communication for Small and Medium Micro Enterprises created in the Student Creativity Program format to be contested at the university and national level. The hope is that a program will be developed that includes practice, theory, community service, and competition.
- 2. Cluster KAB In this cluster, there is also a joint final project whose material involves materials in two courses: Intercultural Communication and Human Relations. The big project in this cluster is a mutually supportive project between two courses that will improve the quality of self and softskill from students.
- 3. Cluster Protocol In this cluster, has a final task that is a combination of the course Protocol and Public Speaking.

This model, can be carried out with notes, groups of students do not change in one cluster. Groups may change for different clusters.





Figure 21: Model of integrated course cluster.

Another requirement is that there are curriculum, lecture manual, and practice module which is made based on good course lecture and ready to be implemented by any teaching lecturer. 'Integrated Course Cluster' still needs to be tested, observe and seen further whether it can solve the problem.

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